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REMARKS

Claims 1-22 are pending in the present application.

In the Office Action mailed June 17, 2003, the Examiner rejected Claims 1, 2 and 17-19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,442,153 by Dahlman et al. (hereinafter "Dahlman"). Claims 13 and 22 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. US 2001/0055319 A1 by Quigley et al. (hereinafter "Quigley"). Claim 15 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. US 2001/0038356 A1 by Frank (hereinafter "Frank").

The Examiner rejected Claims 3, 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Dahlman. Claims 5-8 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Dahlman in view of U.S. Patent No. 6,301,286 by Kanterakis et al. (hereinafter "Kanterakis"). Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Quigley. Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Frank.

Claims 11, 12, and 21 are allowed. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully respond to this Office Action.

35 U.S.C. §102(e) Rejections

Claims 1, 2 and 17-19

The Examiner rejects Claims 1, 2 and 17-19 as being anticipated by Dahlman. Applicants respectfully disagree with the Examiner's characterization of Dahlman as teaching the limitations as recited in Applicants' Claims 1, 2 and 17-19. Specifically, Dahlman fails to teach each and every element of those claims.

With respect to Claim 1 and its dependants, Dahlman makes no mention of a subpacket, nor teaches an equivalent. Fig. 1 of Dahlman shows an un-repackaged data packet comprising a preamble and a data field. The packet of Dahlman is transmitted in order to gain random access to a communication resource. The packet is transmitted with increasing power until a base station responds. The packet is never repackaged. There are no subpackets.

With respect to Claims 2 and 19, Dahlman makes no reference to sequencing any preamble. As stated above, the preamble is repeated, unmodified, with increasing transmit power. The packet is never repackaged into a subpacket. No preamble unit is ever formed. No sequencing of the preamble unit is mentioned, nor is any equivalent suggested or taught.

No basis whatsoever is provided for the rejection of Claims 17 and 18.

Applicants respectfully assert that the rejection to Claims 1, 2 and 17-19 should be withdrawn.

Claims 13 and 22

The Examiner rejects Claims 13 and 22 as being anticipated by Quigley. Applicants respectfully disagree with the Examiner's characterization of Quigley as teaching the limitations as recited in Applicants' Claims 13 and 22. Specifically, Quigley fails to teach each and every element of those claims.

Applicants note that Quigley does not mention a subpacket or its equivalent in the entire application. Examiner indicates that payload 118a includes both data and a preamble attached thereto. The Examiner incorrectly characterizes a portion of a packet allocated to transmission in a slot as a subpacket. A subpacket, an example of which is detailed in the Application on page 11, lines 11-14, will carry at least some information that is redundant in another subpacket, such that subpackets may be combined upon reception. In Quigley, a packet is merely broken up into chunks and transmitted in one or more slots. No reference is made to subpackets, or an equivalent thereto.

sub packet
Applicants respectfully assert that the rejections to Claims 13 and 22 should be withdrawn.

Claim 15

Examiner rejects Claim 15 as being anticipated by Frank. Applicants respectfully disagree with the Examiner's characterization of Frank as teaching the apparatus as recited in Applicants' Claim 15. Specifically, Frank fails to teach each and every element of the claim.

The Examiner asserts that "Frank teaches an apparatus having an encoder 302 for receiving data payload transmission parameters a [sic] spreading element 308 and a mapper (310

and 312) for mapping the spread encoded data payload transmission parameters.” In fact, Frank does not teach, discuss, or even mention payload transmission parameters. Encoder 302 in Frank receives data for transmission, but no data payload transmission parameters. Thus, Frank does not teach or anticipate “an encoding element for receiving data payload transmission parameters”, as recited by Applicants’ Claim 15. The mappers 310 and 312 of Frank are used to map spread data into a modulation constellation, with examples given as QAM, BPSK, and QPSK. The Examiner does not assert that mappers 310 and 312 permute, as recited in Claim 15. Neither does Frank provide any support or teaching for such permuting. Furthermore, Frank’s mappers 310 and 312 do not operate on data payload transmission parameters. Applicants respectfully assert that the rejection to Claim 15 should be withdrawn.

35 U.S.C. §103(a) Rejections

To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation of, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all the claim limitations.

For each §103(a) rejection in this Office Action, Applicants submit: the prior art of record does not provide a suggestion or motivation to modify the references; there is not a reasonable expectation of success, and the references do not teach or suggest all the claim limitations.

With reference to Claims 3, 9, 10, 14, and 16, the Examiner rejects each claim based on a single reference. In each case, the Examiner points out that at least one of the claim limitations is lacking in the reference. In each case, the Examiner states the conclusion that “such limitations do not involve any inventive step” and further that “It would have been obvious to one skill [sic] in the art at the time of the invention to modify” each reference to include one or more of the missing claim limitations taught by Applicants. The Examiner provides no suggestion or motivation in the cited references to make any of the modifications. The Examiner provides no other evidence to support the conclusion that the limitations “do not involve any inventive step” or that modification would have been obvious to one of skill in the art. In each case, the Examiner has failed to present a convincing line of reasoning supporting the rejection.

If the Examiner is relying on personal knowledge to support the finding of what is known in the art, Applicants request that Examiner provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding, per 37 CFR 1.104(d)(2).

Applicants assert that the Examiner has failed to establish a *prima facie* case of obviousness, thus the §103(a) rejections are procedurally defective. Applicants assert the §103(a) rejections should be withdrawn.

Claims 3, 9, and 10

The Examiner rejects Claims 3, 9 and 10 as being unpatentable over Dahlman. Applicants respectfully disagree with the Examiner's characterization of Dahlman as teaching the elements of either Claim 1 or 2 (as detailed above) upon which Claims 3, 9 and 10 are dependent. Thus, the rejection to Claims 3, 9 and 10 should be withdrawn.

Furthermore, Dahlman makes no reference to sequencing or a permutation pattern. Neither does Dahlman teach or provide any motivation for making any of the modifications required to include the limitations of Claims 3, 9, and 10. Nor has the Examiner introduced any evidence to identify these limitations, or to provide support for modifying Dahlman to include them. Applicants respectfully assert that the Examiner has not established a *prima facie* case of obviousness with respect to Claims 3, 9 and 10, and the rejections should be withdrawn.

Claims 5-8 and 20

The Examiner rejects Claims 5-8 and 20 as being unpatentable over Dahlman in view of Kanterakis. Applicants respectfully disagree with the Examiner's characterization of Dahlman as teaching the elements of either Claim 1 (as detailed above) upon which Claims 5-8 are dependent. Thus, the rejection to Claims 5-8 should be withdrawn. The Examiner fails to provide any basis whatsoever for the rejection of Claim 18, upon which Claim 20 is dependent. Thus, the rejection to Claim 20 should be withdrawn.

Furthermore, as detailed with respect to Claim 1, Dahlman makes no reference to and does not suggest a preamble payload as recited in Claims 1 and 5-8. Similarly, Kanterakis makes no reference to nor any suggestion of such a preamble payload. The Examiner has not shown where either reference suggests a motivation for combining the two references. Applicants note

further that encoding the preamble described in Dahlman using the encoder of Kanterakis (notwithstanding the lack of evidence for motivation of such a combination) would not produce the limitations recited in Claims 5-8. Thus, Applicants respectfully assert that the Examiner has not established a *prima facie* case of obviousness with respect to Claims 5-8, and the rejections should be withdrawn.

With respect to Claim 6, the Examiner asserts that "the preamble inherently includes a destination address and source address inherently encoded differently from a remaining portion of the preamble." The Examiner asserts two conclusions of inherency, without any supporting evidence. Dahlman itself may be used as evidence to rebut the conclusion that a preamble inherently includes a destination address and a source address. The preamble of Dahlman includes neither a destination address nor a source address. Therefore, a destination and a source address are not inherent in a preamble. Similarly, Dahlman may be used as evidence to rebut the conclusion of "a destination address and source address inherently encoded differently from a remaining portion of the preamble." In Dahlman, the entire preamble is encoded with the same process. Thus, encoding various portions of a preamble differently cannot be inherent, as evidenced by the existence of Dahlman and the lack of such a property therein. Finally, it is clear from both of these rebuttals that not only does Dahlman not include the limitations recited in Claims 5-8, but that Dahlman teaches away from those limitations. Thus, the rejections to Claims 5-8 should be withdrawn on these bases as well.

The Examiner has failed to provide any basis for the rejection of the limitations of Claim 18. Neither does the prior art of record provide such basis. There is therefore no argument put forth by the Examiner with respect to dependent Claim 20 to which Applicants can respond. Thus, Applicants respectfully assert that the Examiner has not made a *prima facie* case of obviousness with respect to Claim 20, and the rejection should be withdrawn.

Claim 14

The Examiner rejects Claim 14 as being unpatentable over Quigley. Applicants respectfully disagree with the Examiner's characterization of Quigley as teaching the elements of Claim 13 (as detailed above) upon which Claim 14 is dependent. Thus, the rejection to Claim 14 should be withdrawn.

Furthermore, Quigley makes no reference to available Walsh channels. Neither does Quigley teach or provide any motivation for making any of the modifications required to include the limitations of Claim 14. Nor has the Examiner introduced any evidence to identify these limitations, or to provide support for modifying Quigley to include them. Applicants respectfully assert that the Examiner has not established a prima facie case of obviousness with respect to Claim 14, and the rejection should be withdrawn.

Claim 16

The Examiner rejects Claim 16 being unpatentable over Frank. Applicants respectfully disagree with the Examiner's characterization of Frank as teaching the elements of Claim 15 (as detailed above) upon which Claim 16 is dependent. Thus, the rejection to Claim 16 should be withdrawn.

The Examiner asserts that "Frank does not teach the further limitations of modulating the payload data prior to spreading. However, such limitations do not involve any inventive step." The Examiner misstates the limitation recited in Claim 16. The limitation reads "modulating the encoded data payload **transmission parameters** before input into the spreading element. [emphasis added]" So the Examiner's argument is directed toward a limitation that is not in the claim. Frank specifically teaches away from the limitation of Claim 16 by specifically placing the modulation elements (314, 316) after the spreading elements (306, 308). Furthermore, no distinction is made in modulating one portion of any data differently than other portion. Thus, Frank not only fails to suggest a motivation to make the limitations recited, but affirmatively teaches an incompatible alternative. Additionally, the function of Frank's symbol mappers 310 and 312, detailed above with respect to Claim 15, could not function properly on data that had been previously modulated, as they provide a prerequisite function in Frank's invention. Thus neither Frank nor the Examiner have introduced any evidence to identify these limitations, or to provide motivation for modifying Frank to include them. Applicants respectfully assert that the Examiner has not established a prima facie case of obviousness with respect to Claim 16, and the rejection should be withdrawn.

Allowed Subject Matter

The Examiner has allowed Claims 11, 12, and 21.

The Examiner has objected to Claim 4 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants respectfully assert that, based on the arguments detailed above, both Claims 1 and 2, upon which Claim 4 is dependent, should be allowed, and therefore the objection to Claim 4 should be withdrawn.



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In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: 10/16/2003

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